MANITOBA

WORKPLACE INJURY AND ILLNESS STATISTICS REPORT FOR 2000-2003

JANUARY 2005

SAFE WORK

SAFE
SPOT THE HAZARD
ASSESS THE RISK
FIND A SAFER WAY
EVERYDAY

WCB
Workers Compensation Board of Manitoba

Manitoba

Manitoba

Workplace Injury and Illness

Statistics Report

2000 - 2003

SAFE WORK

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FIND A SAFER WAY
EVERYDAY

January 2005

WCB Workers Compensation Board of Manitoba

Manitoba Labour and Immigration
Workplace Safety and Health Division

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Acknowledgements

The Manitoba Workplace Injury Statistics Report 2000-2003 is the second annual report of this type. Its development has stemmed from cooperative efforts between the Workplace Safety and Health Division of Manitoba Labour and Immigration and the Workers Compensation Board of Manitoba (WCB) and is an integral component of Manitoba's joint injury prevention strategy *(SAFEWORK)*.

Committee members involved in this initiative to develop improved workplace injury and illness surveillance and reporting systems for the province have included Dr. Ted Redekop, Norma Alberg, Jo-Anna Guerra from the Workplace Safety and Health Division of Manitoba Labour and Immigration and from the Workers Compensation Board of Manitoba Barry Warrack, Michael Rohatynsky, Janet Sprout, Murray Lempen, Jim Brown, Harv Peters and Krista Breckman.

EXECUTIVE SUMMARY

This is the second comprehensive report on the subject of workplace injuries and illnesses in Manitoba, a joint initiative of the Workers Compensation Board of Manitoba and the Workplace Safety and Health Division of Manitoba Labour and Immigration. This report is one component of the *SAFEWORK* strategy to foster a strong workplace safety and health culture in Manitoba. This report provides a point of reference for monitoring shifts in workplace injury and illness trends over time.

As in the inaugural edition last year, this year's report provides a complete picture of workplace injuries by providing both the all-injury rate and the time loss injury rate. Secondly, using a variety of sources to capture all available data, it continues to present a comprehensive picture of workplace fatalities in Manitoba. For the first time, this year's report examines four years of data and assesses trends from 2000 to 2003.

Major highlights of the report include:

- ☑ The time loss injury rate continues to decline from a high of 5.8 in 2000 to 4.7 in 2003.

- ☑ The all-injury rate is approximately double the time loss injury rate in all industries except mining, where it is eight (8) times the time loss rate, and meat processing, where it is four (4) times the all injury rate. This data suggests that even in industries where progress has been made in reducing time loss injury rates, work remains to be done to reduce no time loss injuries.

- ☑ The manufacturing sectors with a 28% decline in the number of time loss claims and 24% decline in all claims from 2000-2003 has had significant reductions in many of its subsectors. However, manufacturing continues to generate the largest number of claims, far out of proportion to the number of workers employed in the industry. Manufacturing employs 16% of all workers, but generates around 33% of all claims. At 19.2 claims per 100 full-time equivalent workers, it also has the highest all-injury rate among industry sectors.

- ☑ Several industry sub-sectors have significantly higher time loss injury rates than the provincial average. These include vehicle manufacturing (14.4 claims per 100 full-time equivalent workers), agricultural implement manufacturing (13.3 claims per 100 full-time equivalent workers), meat processing (12.2 per 100 full-time equivalent workers), metalworking (14.6 claims per 100 full-time equivalent workers), construction (9.1 claims per 100 full-time equivalent workers), wood manufacturing (9.0 claims per 100 full-time equivalent workers), trucking (8.5 claims per 100 full-time equivalent workers), healthcare (5.0 claims per 100 full-time equivalent workers) and agriculture (5.4 claims per 100 full-time equivalent workers).

- ☑ This report used all available sources to identify workplace fatalities. Not counting by-stander deaths, 23 workers in 2000, 28 in 2001, 17 in 2002, and 16 in 2003 died as a result of exposures to acute hazards in the workplace. In addition, the WCB accepted 12 occupational disease claims in 2000, 16 in 2001, nine in 2002 and 19 in 2003.

- ☑ A bystander is a person who is killed as a result of exposure to a workplace hazard, who was not a worker at that workplace at their time of death. There were four by-stander deaths identified in 2000, five in 2001, 16 in 2002 and six in 2003. The rise in the number of by-stander deaths may be the result of better surveillance methods used by WSHD and the Chief Medical Examiner's Office.

- ☑ Men are more likely to suffer a workplace injury or illness than women. In 2003, men reported 71% of accepted claims, and women reported 29%. Men are more likely to be employed in higher-risk industries, while women are more likely to work in lower-risk industries and in industries exempt from WCB coverage.

- ☑ Reflecting the aging workforce, the typical injured worker is older than previously. In 2003, the average age of injured male workers was 37, and the average age of injured female workers was 40.

- ☑ About 57% of all time loss injuries are musculoskeletal injuries, with the majority being strains and sprains.

- ☑ Injuries to hands and fingers comprise nearly a quarter of all injuries.

1.0 INTRODUCTION

This is the second annual report on workplace injuries and illnesses in Manitoba. It has been generated using data obtained, for the most part, from the Workers Compensation Board of Manitoba (WCB) database of accepted claims for the years 2000 through 2003. For the first time, the report presents four years of data which makes it possible to begin to identify and discuss emerging trends. The section of this report on workplace fatalities also makes use of a variety of other sources.

This report is part of the Province of Manitoba's Workplace Safety and Health Injury Prevention Strategy. This strategy was introduced in 2002 by the Minister of Labour and Immigration and is a joint initiative of the WCB of Manitoba and the Workplace Safety and Health Division of Manitoba Labour and Immigration. Progress towards the goal of a 25% reduction in Manitoba's time loss injury rate is due in large part to the actions of employers and workers to strengthen their own injury prevention efforts. It is hoped that the information in this report will provide needed data to allow benchmarks to be established and results to be tracked over time.

The injury statistics report contains four main sections:

1. Injury rates;
2. Workplace fatalities;
3. Characteristics of injured workers and accepted claims; and,
4. Discussion

The first major section of the injury statistics report contains information on injury rates per 100 full-time equivalent workers. Two rates are calculated: a time loss injury rate and an all-injury rate. Each of these rates is sub-categorized by major industry sectors and selected sub-sectors. These particular sub-sectors have been chosen to profile major industry sectors.

The second section of the report discusses work-related fatalities. A wide variety of data sources are used to pull together this comprehensive picture of workplace fatalities in Manitoba.

The third section of the report presents the characteristics of WCB claimants and their claims. This knowledge may be used to target prevention efforts to reduce work-related injuries and illnesses. The age, gender and occupations of injured workers are profiled. Specific characteristics of the workplace injury and illness are also discussed including part of body injured, nature of injury and illness, event and source of injury.

For the first time, a discussion section is included to explore the impact of the trends that are emerging over the four years of available data.

2.0 *INJURY RATES*

2.1 *Background*

Manitoba's time loss injury rate and its all-injury rate are outlined in this section. The time loss injury rate is the number of time loss claims per 100 full-time equivalent workers for WCB-covered industries. The all-injury rate, on the other hand, is the number of time loss claims, no-time loss claims, pensions and fatalities per 100 full-time equivalent workers for WCB-covered industries. Because *The Workers Compensation Act* covers about 70% of Manitoba workers, injury frequency data cannot be obtained for the whole workforce. Nevertheless, rates derived from WCB data serve as useful surrogate or proxy measures of the overall frequency of worker injuries.

The claims used to calculate these two rates were reported to the WCB in calendar years 2000 to 2003 (see table 2.1). Details about the specific definitions and formulas used to calculate the two rates are included in the section at the end of this report titled "terms and definitions."

Table 2.1 Population of Claims Used to Calculate Injury Rates

Type of Claims	Reported to WCB in 2000	Reported to WCB in 2001	Reported to WCB in 2002	Reported to WCB in 2003
Time Loss Claims (includes time loss, pension and fatalities)	20,147	18,919	18,278	17,766
No-Time Loss Claims	20,051	18,114	17,322	17,767
Total All Claims	40,198	37,033	35,600	35,533

2.2 *Time Loss Injury Rate*

The Government of Manitoba, in agreement with the recommendation of the Workplace Safety and Health Review Committee, has set a target of reducing the time loss injury rate by 25%. The Government of Manitoba and the Workers Compensation Board are focusing their activities in four priority areas: enhancing public awareness and education, training employers and supervisors, improving prevention measures and standards, and enhancing the internal and external responsibility systems.

Manitoba's time loss injury rate fell from a high of 5.8 time loss injuries per 100 full-time equivalent workers in 2000 to 4.7 in 2003, a decline of 19% in the rate since 2000.

This trend continues on target to meet the goal of a 25% reduction in the injury rate. These reductions can be attributed to a number of factors:

1. Manitoba employers and workers have stepped up their injury prevention efforts.
2. Increasing public awareness of the importance of workplace safety and health in response to the *SAFEWORK* awareness campaign.
3. The application of the WCB's experience rating system that creates a financial incentive for employers to prevent injuries.
4. The introduction of the SCORECARD that demonstrates the effect and costs of time loss injuries on employers' present and future bottom-line.
5. Workplace Safety and Health Division's improved inspection and enforcement program combined with a ten-fold increase in fines under *The Workplace Safety and Health Act* in 1998, and focused inspections on high-hazard workplaces.

While this improvement is encouraging, employers, workers, government and the WCB will need to continue injury and illness prevention efforts if further reductions are to be realized.

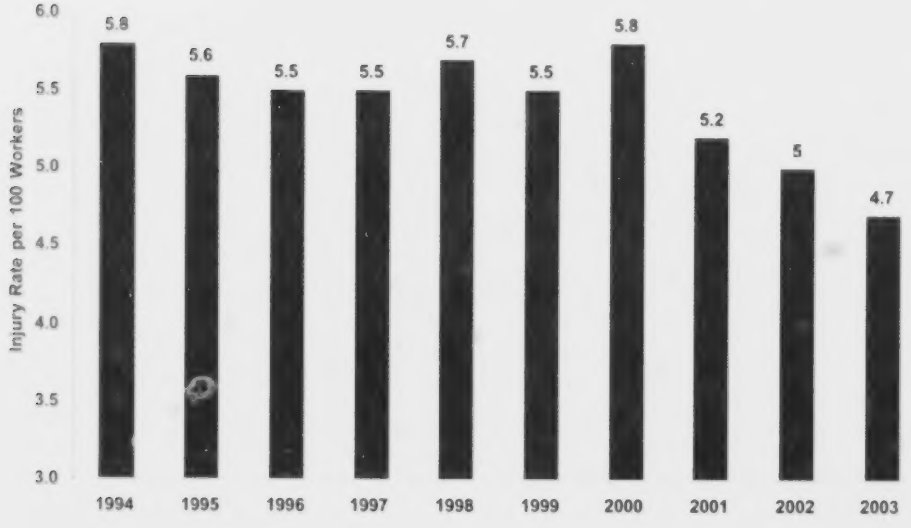

Figure 2.1 Manitoba Time Loss Injury Rates 1994 - 2003

2.2.1 Industry and Sub-Industry Rates

Table 2.2 details the time loss injury rate of major industry sectors and selected sub-sectors for 2000 to 2003. It illustrates that:

- Construction (10.5 in 2000 reducing to 9.1 in 2003) and manufacturing (12.7 in 2000 declining to 9.0 in 2003) still have the highest rates among industry sectors.
- Within the manufacturing sector, vehicle manufacturing (29.3 in 2000 and 14.4 in 2003), agricultural implement manufacturing (19.6 in 2000 and 13.3 in 2003), meat processing (19 in 2000 and 12.2 in 2003) and metalworking (17.6 in 2000 and 14.2 in 2003) had particularly high rates. Encouragingly, however, each of these sub-sectors has shown significant improvement in rates since 2000. The manufacturing sector is primarily responsible for the overall drop in the time loss injury rate over the four-year period.
- The service, voluntary and self insurers sectors have shown little improvement over the four years profiled, and a similar trend is seen in a number of sub-sectors such as the clothing manufacturing sub-sector (3.8 in 2000 and 3.7 in 2003), the heavy construction sub-sector (7.9 in 2000 and 8.0 in 2003), and the healthcare sub-sector (5.1 in 2000 and 5.0 in 2003).

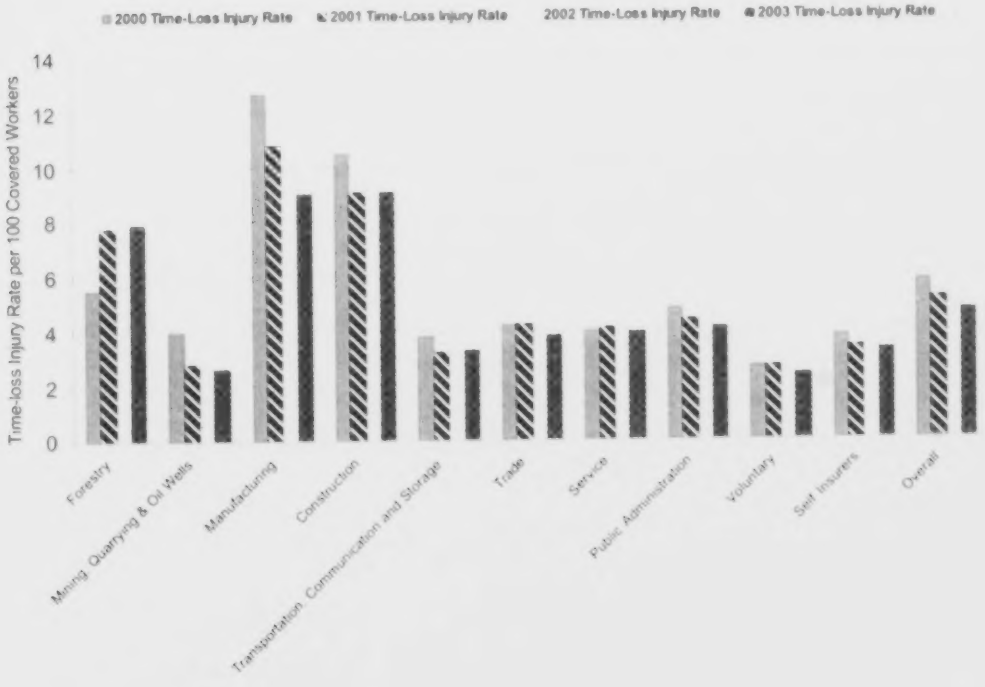

Figure 2.2 Time Loss Injury Rate by Industry Sectors, 2000 to 2003

Table 2.2 Time Loss Injury Rate by Major Industry Sectors and Selected Sub-Sectors, 2000 – 2003

Industry Sub-Sectors	Time Loss Injuries							
	2000		2001		2002		2003	
	#	Rate	#	Rate	#	Rate	#	Rate
Forestry	**21**	**5.5**	**29**	**7.8**	**28**	**7.5**	**33**	**7.9**
Mining, Quarrying & Oil Wells	**175**	**4.0**	**131**	**2.8**	**119**	**2.6**	**116**	**2.6**
Mining	*130*	*3.5*	*87*	*2.4*	*77*	*2.2*	*76*	*2.3*
Manufacturing	**7,724**	**12.7**	**6,687**	**10.8**	**6,063**	**9.9**	**5,549**	**9.0**
Meat Processing	*526*	*19.0*	*482*	*15.4*	*497*	*14.3*	*438*	*12.2*
Metal Works	*1,000*	*17.6*	*821*	*14.0*	*828*	*14.2*	*874*	*14.6*
Vehicle Manufacturing	*1,129*	*29.3*	*940*	*25.6*	*538*	*16.8*	*440*	*14.4*
Agricultural Implement Manufacturing	*828*	*19.6*	*645*	*15.3*	*645*	*14.9*	*606*	*13.3*
Wood Manufacturing	*1,333*	*16.0*	*1,182*	*13.1*	*1,097*	*11.2*	*924*	*9.0*
Printing	*244*	*4.5*	*208*	*3.8*	*259*	*4.7*	*221*	*4.0*
Clothing Manufacturing	*220*	*3.8*	*184*	*3.5*	*177*	*3.6*	*165*	*3.7*
Aircraft Manufacturing & Repair	*228*	*5.4*	*233*	*5.7*	*193*	*5.3*	*130*	*3.9*
Construction	**1,705**	**10.5**	**1,471**	**9.1**	**1,568**	**9.7**	**1,590**	**9.1**
Building Construction	*1,436*	*11.4*	*1,229*	*9.5*	*1,299*	*9.9*	*1,318*	*8.9*
Heavy Construction	*269*	*7.9*	*242*	*7.3*	*269*	*8.7*	*272*	*8.0*
Transportation, Communication & Storage	**1,388**	**3.8**	**1,271**	**3.2**	**1,281**	**3.2**	**1,291**	**3.3**
Trucking	*886*	*10.0*	*815*	*9.1*	*814*	*9.1*	*826*	*8.5*
Trade	**2,704**	**4.2**	**2,741**	**4.2**	**2,658**	**3.9**	**2,652**	**3.8**
Supermarket & Department Stores	*1,291*	*3.1*	*1,441*	*3.3*	*1,414*	*3.1*	*1,384*	*2.9*
Service	**3,466**	**4.0**	**3,614**	**4.1**	**3,679**	**4.1**	**3,655**	**3.9**
Accommodation & Restaurants	*845*	*2.8*	*881*	*3.0*	*761*	*2.6*	*750*	*2.5*
Healthcare	*2,249*	*5.1*	*2,336*	*5.1*	*2,502*	*5.1*	*2,483*	*5.0*
Public Administration	**144**	**4.8**	**142**	**4.4**	**165**	**5.5**	**132**	**4.1**
Voluntary	**948**	**2.7**	**953**	**2.7**	**920**	**2.4**	**888**	**2.4**
Agriculture	*91*	*5.0*	*122*	*5.2*	*125*	*4.9*	*130*	*5.4*
Educational Institutions	*409*	*2.9*	*378*	*2.6*	*394*	*2.6*	*378*	*2.7*
Self Insurers	**1,869**	**3.8**	**1,875**	**3.4**	**1,769**	**3.4**	**1,856**	**3.3**
Overall	**20,147**	**5.8**	**18,919**	**5.2**	**18,278**	**5.0**	**17,766**	**4.7**

Source: WCB Claim and Employer Databases and Statistics Canada Survey of Employment, Payrolls and Hours

2.3 *All-Injury Rate*

The all-injury rate is derived from the population of all accepted claims (time loss, no-time loss, pensions and fatalities). In most industry sectors, the number of time loss claims is about equal to the number of no-time loss claims. As a result, in most industries the all-injury rate is approximately double the time loss injury rate. However, the variation to this trend occurs in certain sub-sectors where specific hazards that workers are exposed to are such that injuries are less likely to cause lost time from work, causing the all injury rate to more than double. For example, many injuries in the meat processing sub-sector are due to cuts to hands, and generally do not result in time being lost from work. The high incidence of no time loss claims, however, causes the all-injury rate to increase relative to the time loss rate, and in this instance, is more than four times the all-injury rate for this sub-sector.

The all-injury rate in the mining industry is about 8 times the time loss rate. This, in part, highlights the success of the mining sector's injury-prevention efforts and also the effectiveness of large mining companies' mature disability-management programs which encourage workers to immediately return to work after an injury. In the mining sector, only the most serious injuries are recorded as time loss, while the less serious remain no time loss as workers can return to their regular duties or to a modified job after injury. The challenge remains for the mining sector to achieve reductions in no time loss injuries.

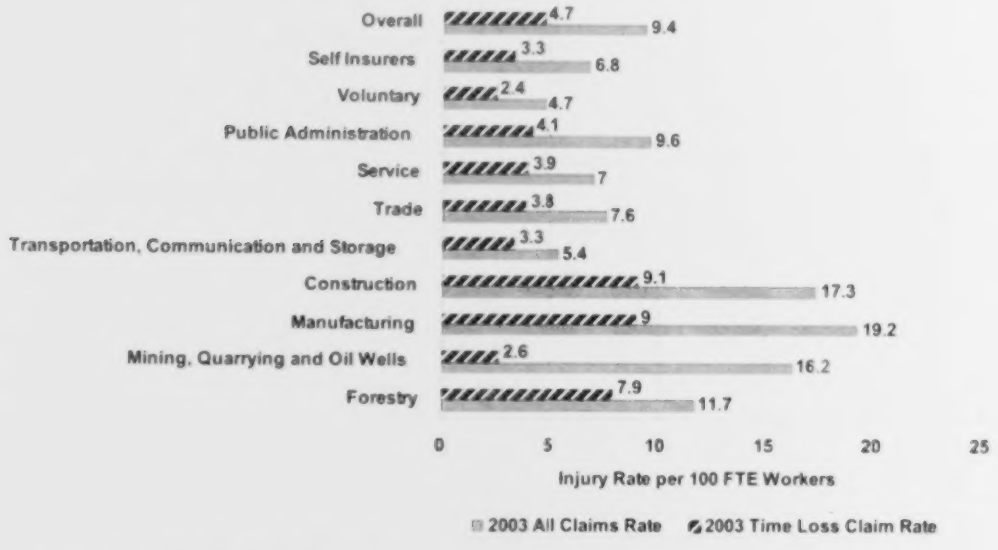

Figure 2.3 All-Injury Rate and Time Loss Injury Rate, 2003

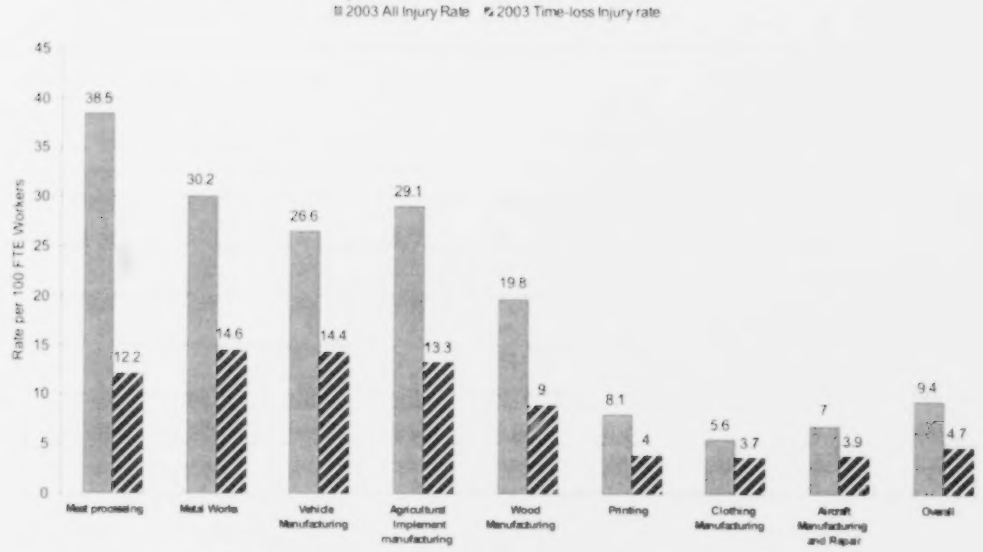

Figure 2.4 All-Injury Rate and Time Loss Injury Rate, Selected Manufacturing Sub-Sectors, 2003

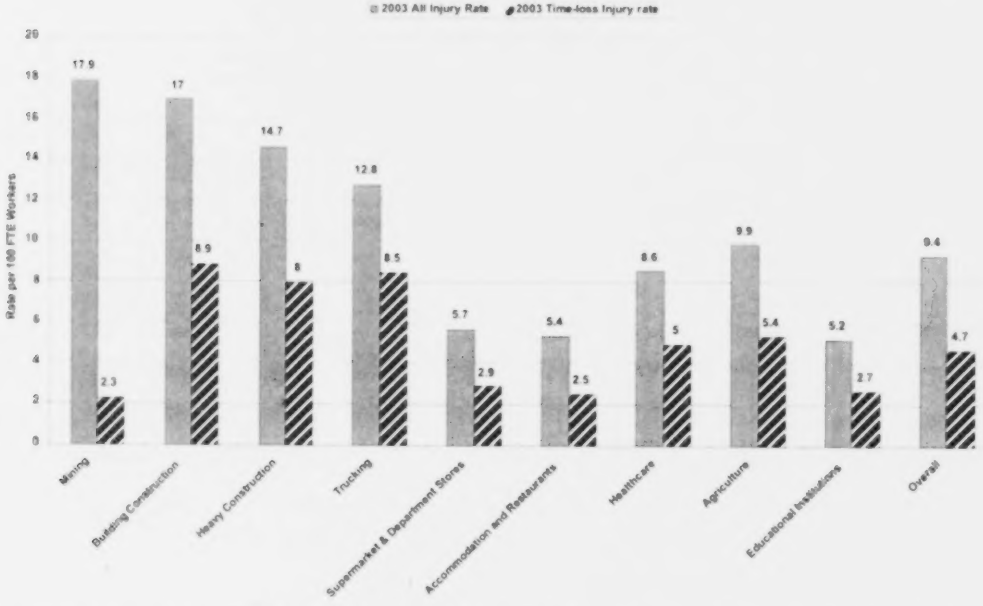

Figure 2.5 All-Injury Rate and Time Loss Injury Rate, Other Industry Sub-Sectors, 2003

Table 2.3 All-Injuries By Subsector (per 100 Full-time Equivalent Workers), 2000 to 2003

Industry Sub-Sectors	All Injuries							
	2000		2001		2002		2003	
	#	Rate	#	Rate	#	Rate	#	Rate
Forestry	42	10.9	64	17.3	78	20.9	49	11.7
Mining, Quarrying & Oil Wells	958	22.0	888	19.1	724	16.1	715	16.2
Mining	*839*	*22.9*	*751*	*20.4*	*619*	*17.9*	*591*	*17.9*
Manufacturing	15,522	25.6	13,648	21.9	12,624	20.6	11,842	19.2
Meat Processing	*1,452*	*52.4*	*1,372*	*43.8*	*1,510*	*43.4*	*1,385*	*38.5*
Metal Works	*2,222*	*39.1*	*1,834*	*31.3*	*1,777*	*30.5*	*1,811*	*30.2*
Vehicle Manufacturing	*1,821*	*47.3*	*1,487*	*40.6*	*957*	*29.8*	*813*	*26.6*
Agricultural Implement Manufacturing	*1,704*	*40.3*	*1,303*	*30.9*	*1,299*	*29.9*	*1,324*	*29.1*
Wood Manufacturing	*2,620*	*31.4*	*2,511*	*27.8*	*2,357*	*24.0*	*2,041*	*19.8*
Printing	*466*	*8.7*	*379*	*6.8*	*443*	*8.0*	*445*	*8.1*
Clothing Manufacturing	*340*	*5.9*	*295*	*5.6*	*278*	*5.7*	*247*	*5.6*
Aircraft Manufacturing & Repair	*421*	*9.9*	*425*	*10.4*	*359*	*9.8*	*231*	*7.0*
Construction	3,331	20.4	2,768	17.0	2,836	15.9	3,011	17.3
Building Construction	*2,809*	*22.2*	*2,334*	*18.1*	*2,328*	*15.6*	*2,509*	*17.0*
Heavy Construction	*522*	*15.3*	*434*	*13.1*	*508*	*16.3*	*502*	*14.7*
Transportation, Communication & Storage	2,369	6.5	2,125	5.3	2,034	5.0	2,127	5.4
Trucking	*1,388*	*15.7*	*1,269*	*14.1*	*1,188*	*13.3*	*1,247*	*12.8*
Trade	5,386	8.3	5,224	7.9	5,106	7.4	5,356	7.6
Supermarket & Department Stores	*2,581*	*6.1*	*2,656*	*6.1*	*2,614*	*5.8*	*2,712*	*5.7*
Service	6,393	7.4	6,446	7.4	6,428	7.2	6,576	7.0
Accommodation & Restaurants	*1,981*	*6.5*	*1,875*	*6.3*	*1,662*	*5.6*	*1,614*	*5.4*
Healthcare	*3,811*	*8.6*	*3,945*	*8.7*	*4,116*	*8.5*	*4,265*	*8.6*
Public Administration	322	10.8	293	9.1	320	10.6	311	9.6
Voluntary	1807	5.1	1,699	4.8	1,744	4.6	1,764	4.7
Agriculture	*175*	*9.6*	*211*	*9.1*	*211*	*8.3*	*240*	*9.9*
Educational Institutions	*758*	*5.3*	*670*	*4.6*	*747*	*5.0*	*722*	*5.2*
Self Insurers	3,977	8.1	3,801	7.0	3,680	7.0	3,758	6.8
Overall	40,198	11.5	37,033	10.2	35,600	9.7	35,533	9.4

3.0 FATALITIES

Manitoba workplaces are tremendously diverse, ranging from underground mining operations to aircraft manufacturers to hospitals and grocery stores. Depending on the nature of the workplace and the work itself, workers may be exposed to an extensive array of risks and hazards, and their risk of death from exposure to hazards varies widely.

This report provides statistics on workers as well as bystanders who died as a result of a workplace incident. (A by-stander is a person exposed to hazards at the worksite but who was not actually a worker at the time of the incident). A child killed on a farm, for example, is classified as a by-stander. Information on who is included in this analysis is located at the end of this report.

Because persons involved in fatal workplace incidents may or may not have been working in workplaces covered by *The Workers Compensation Act*, a variety of sources other than WCB data were used to develop this section. Fatalities accepted by the WCB are only some of the work-related fatalities that occur in Manitoba each year. The Workplace Safety and Health Division maintains a database for tracking the occurrence of work-related fatalities in Manitoba workplaces. This fatality surveillance system gathers information on fatalities from the Division, the WCB, the Chief Medical Examiner's Office, Manitoba Department of Highways, and the Royal Canadian Mounted Police.

Fatalities are arranged in several ways. Fatalities are reported by industry sector and by the jurisdiction that has responsibility for the inspection and regulation of safety-and-health activities*. Finally, fatalities are sorted by the cause of death, including whether deaths were the result of traumatic events or occupational disease. Table 3.1 displays the total numbers of acute hazard fatalities and occupational disease fatalities for the years 2000 through 2003. The only data on work relatedness of disease related deaths is from WCB claims files.

Table 3.1 Acute Hazard & Occupational Disease Deaths, 2000 to 2003

Year	2000	2001	2002	2003
Acute Hazard Exposure Deaths	23	28	17	16
Occupational Disease Deaths Accepted by the WCB	12	16	9	19
Total	**35**	**44**	**26**	**35**

* In Manitoba, about 90% of workers are regulated by the Provincial Workplace Safety and Health Division. Others fall under the jurisdiction of the federal government and are regulated for safety and health by Human Resources and Social Development Canada.

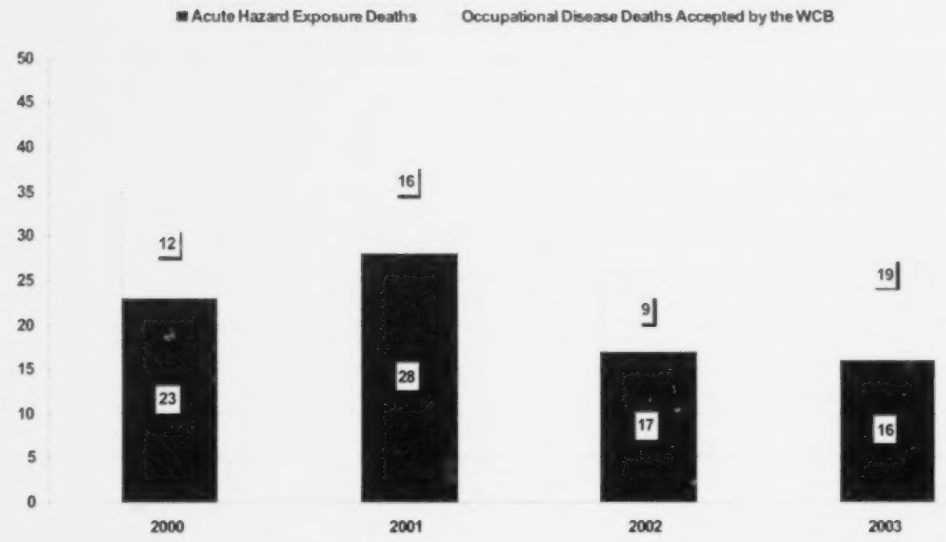

Figure 3.1 Acute Hazard and Occupational Disease Deaths, 2000 to 2003

3.1 Acute Hazard/Traumatic Fatalities

Table 3.1.1 shows all work-related deaths (including by-stander deaths associated with work related sources) caused by an acute hazard in Manitoba for 2000 through 2003.

Table 3.2 Acute-Hazard Exposure Fatalities by Jurisdiction, 2000 to 2003

	Acute-Hazard Exposure Deaths			
	2000	**2001**	**2002**	**2003**
Provincial Jurisdiction				
Farm	*7*	*3*	*1*	*6*
Construction	*1*	*6*	*6*	*3*
Mining	*2*	*0*	*0*	*0*
Logging	*0*	*1*	*0*	*0*
Manufacturing	*2*	*0*	*1*	*2*
Other Industry	*2*	*4*	*2*	*2*
Commercial Fishing	*0*	*3*	*2*	*1*
Provincial Jurisdiction Sub Total	**14**	**17**	**12**	**14**
Federal Jurisdiction				
Ground Transportation (interprovincial trucking and rail transport)	*8*	*5*	*5*	*1*
Air Transportation	*1*	*4*	*0*	*0*
Police and security	*0*	*2*	*0*	*0*
Other	*0*	*0*	*0*	*1*
Federal Jurisdiction Sub Total	**9**	**11**	**5**	**2**
Total for Acute Hazard Exposure Deaths	**23**	**28**	**17**	**16**
By-stander / Non-worker	**4**	**5**	**16**	**6**
Grand Total	**27**	**33**	**33**	**22**

3.1.1 Agricultural Industry Fatalities

Three sectors are primarily responsible for most fatalities: construction, farming and ground transportation. Construction fatalities are mainly due to the risk of falling from height or heavy equipment operators. Ground transportation fatalities are often associated with motor vehicle collisions or railroad injuries. Primary agricultural production presents an environment with diverse hazards. Many of the hazards are common to other industries such as construction and heavy equipment operation. Other hazards are unique, perhaps the most distinct being the exposure of all age groups to the

work environment. The farm is the only workplace that regularly permits the presence of children and where young children are involved in the work of farming.

Over the 2000-2003 period, 17 farm related deaths have occurred or 20% of all acute hazard and traumatic exposure deaths in Manitoba. Only the transportation sector had a greater number and proportion of traumatic deaths over this same period.

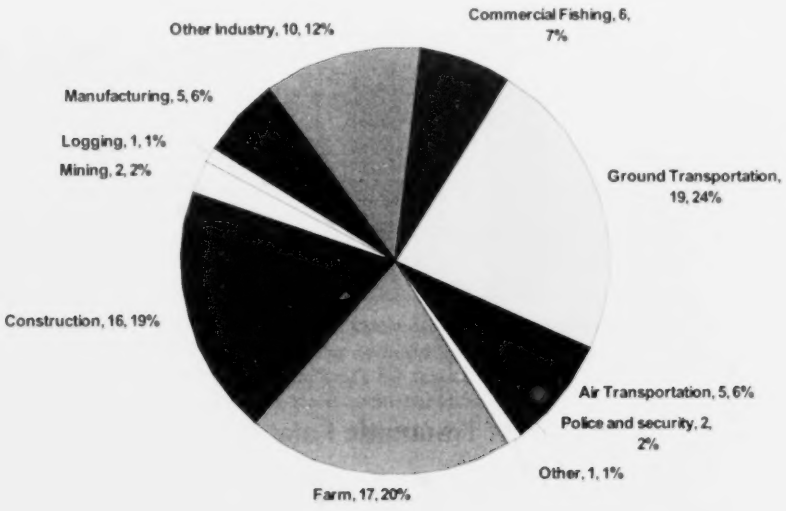

Figure 3.2 Traumatic Fatalities by Major Industry Sector, 2000 to 2003

3.1.2 Fatalities by Age Group

Figure 3.3 displays age groups of traumatic exposure deaths in Manitoba from 2000 to 2003. Of the 84 deaths during this period, ages were recorded for 82. Ten fatalities were youth aged 15-24, 19 were aged 25-34, 14 were aged 35-44 and 21 were workers aged 45-54. The 55+ age group experienced 18 traumatic fatalities in this period.

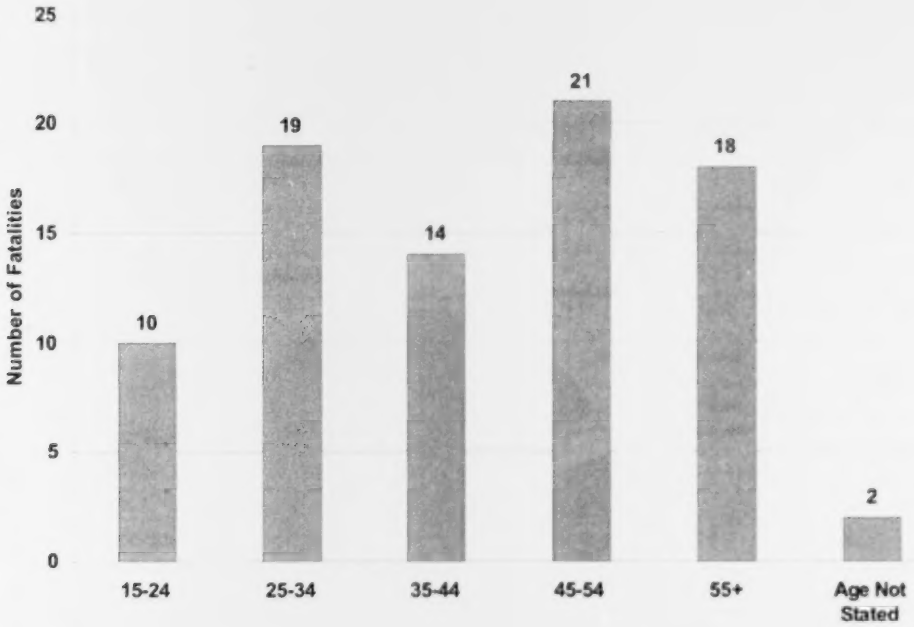

Figure 3.3 Age Distribution of Traumatic Fatalities, 2000 to 2003, Aggregated

3.2 Occupational Disease Fatalities

Table 3.3 outlines fatalities from diseases (e.g., asbestos-related cancers) that were accepted by the WCB as resulting from exposures to toxic substances in workplaces. Work-related diseases represent a growing area of concern in Manitoba workplaces. While cancers from exposures to asbestos remain significant, cancers from other exposures (e.g., cancers among firefighters from inhaling toxic smoke) are becoming more recognized as to work relatedness.

These claims are grouped by the year in which the claims for compensation for the illnesses were accepted by the WCB. This may not be the same as the year of death because fatalities caused by diseases may not be reported to the WCB until long after the workers have died. This is especially the case when *The Workers Compensation Act* is revised to grant new entitlements to workers. For example, the amendments made to the *Act* in May 2002 that recognized certain cancers as hazards of firefighting produced a large number of new claims being submitted involving workers who had already succumbed to these diseases.

Occupational diseases develop slowly over time, with exposures to hazardous agents occurring decades before. These exposures may eventually cause death. Sometimes, however, acute toxic exposure to a lethal agent such as carbon monoxide (by inhalation) or pesticides (by ingestion) causes illness and death more quickly. It is expected that

asbestos related cancer numbers will be peaking during the next few years and then decrease as exposure to asbestos has significantly decreased.

Table 3.3 Diseases and Conditions Accepted by the WCB in Fatality Claims, 2000 to 2003

Disease Conditions	2000	2001	2002	2003
Obstructive Lung Disease	0	1	0	0
Pneumoconiosis	1	3	1	1
Mesothelioma (asbestos)	4	7	7	9
Cancer, other	2	3	1	8*
Myocardial Infarction	2	1	0	1
Other	4	1	0	0
Total	**13**	**16**	**9**	**19**

*Note: The large number of cancers accepted in 2003 are due to the recent amendment to *The Workers Compensation Act*, which came into force in May 2002, and provides a rebuttable presumption of compensation for full-time firefighters who are regularly exposed to the hazards of a fire scene (other than a forest fire scene) for a prescribed minimum period and who contract primary site brain, bladder or kidney cancer, primary non-Hodgkin's lymphoma or primary leukemia.

3.3 Bystander Fatalities

Bystander deaths (Table 3.3) occur in Manitoba workplaces as the result of contact with or exposure to hazards in a workplace. Although the victims are not employees, they die from exposure to the same types of hazards that workers are exposed to daily. Safety and health legislation directs employers to ensure the safety and well-being of everyone at the worksite, whether or not they are workers. The increase in the number of bystander fatalities in 2002 was due to the large number of individuals who died due to motor vehicle incidents in that year involving a vehicle such as a large truck which was at work.

Table 3.4 Bystander deaths by type of event and workplace, 2000 to 2003

Type of Event	2000	2001	2002	2003
Highway crash	1	2	12	4
Transportation, other (incl. pedestrian)	1	0	2	1
Fall from one level to another	0	2	0	0
Struck by an object	0	0	1	1
Carbon monoxide poisoning	0	0	1	0
Drowning	2	1	0	0
Total	**4**	**5**	**16**	**6**

4.0 WORKPLACE INJURY AND DISEASE ANALYSIS

This section presents the characteristics of workers whose injuries occurred in 2000 through 2003 and whose claims were accepted by the Manitoba WCB. Both accepted time loss claims (claims where wages were lost and replaced, or where there was a fatality or an impairment award) and no time loss claims are analyzed in this section.

Not all characteristics are available in the database for all claim populations. For example, information regarding the type of injury or the circumstances surrounding the injury event is only collected for time loss claims, while characteristics such as gender and age are collected for all accepted claims.

Table 4.1 Population of Claims, 2000 to 2003[1]

Type of Claim	2000	2001	2002	2003
Time Loss Claims (includes time loss, pension and fatalities)	19,959	18,593	17,869	17,482
No-Time Loss Claims	19,883	17,844	16,974	17,582
Total All Claims	**39,842**	**36,437**	**34,843**	**35,064**

Knowing who is most likely to be in danger of occupational injury or illness makes injury prevention activities more effective. The next sections of the report provide information about workers who are likely to be at risk, along with their ages, gender, types of jobs, and the industries in which they are employed at time of injury.

4.1 Gender (All Accepted Claims)

In 2003, male workers submitted 71% of accepted claims, while female workers reported 29%. No gender was recorded in a small number of claims. The percentage of claims from men and women is somewhat different from the percentage of workers employed by gender. In 2003, Statistics Canada reported that 54% of workers in Manitoba were men and 46% were women. This demonstrates that men are over-represented in the injury claim statistics.

[1] This section of the report uses claims data by injury year to describe the characteristics of claimants and claims. This is different from the method employed in the Workers Compensation Board's Annual Report, which uses the year the injury or illness was reported to the Board.

Several factors may help to explain the overrepresentation of men in the accepted claim statistics. One of the most important is that men are more likely to work in the more hazardous jobs in the primary and goods-producing sectors that have the highest injury rates. Women are more likely to work in lower-risk jobs in the service sector, and in industries not covered by the WCB.

In four of these industry sectors (mining, forestry, construction and transportation/ communication), men reported more than 90% of all accepted claims. In manufacturing, men reported more than 80%. Women reported more claims than men (more then 70%) only in the service sector. Overall the ratio of males to females in WCB injury claims shows a gradual increase in the female proportion. This perhaps reflects the change I demographics as women are more likely to be employed in what were previously male dominated vocations.

Figure 4.1 Claims by Gender, 2000 to 2003

Note: in most of the tables and graphs in this section, the percentages for "not coded" and "unknown" have been excluded form the percentages shown.

4.2 Age Group (All Accepted Claims)

Perhaps because of their youth and inexperience, younger workers are more likely to experience an injury or illness than their older colleagues. In 2003, young workers (those under the age of 25) comprised 17% of the work force and 18% of claimants.

Workers between the ages of 25 and 34 made up 21% of the work force, but 24% of claimants, while workers between the ages of 35 and 44 made up 25% of the workforce and 28% of claimants. In 2003, those 55 years of age and older were 13% of the workforce but only 10% of claimants. The proportion of workers with accepted claims who are 45 to 54 is growing relative to other age groups. It has increased from 18.3% of accepted claims in 2000 to 21.4% in 2003.

In 2003, the average age of female claimants was 40. More claims come from older women as they are concentrated in service sector jobs such as in health care, where there is an aging workforce. For men, the average age was 37.

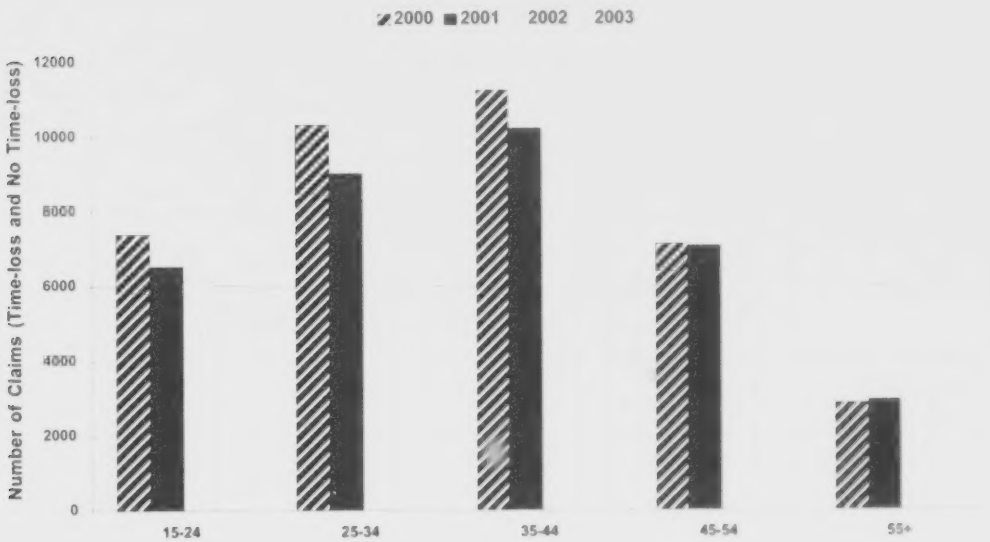

Figure 4.2 Injured and Ill Workers by Age, 2000 to 2003

4.3 Industry Sector

The industry groupings in this section are drawn from WCB rate code groups, rather than Standard Industrial Classification or the North American Industry Classification System codes. In 2000, the proportion of no-time loss and time loss claims in manufacturing was roughly equal at 39%. By 2003 this sector's share of no-time loss claims fell to 35.5% while its share of timeloss decreased to 31.3%. Nevertheless, this is far disproportionate to manufacturing's share of covered workers (16%). By comparison service and trade sectors increased their share of accepted claims from 2000- 2003.

The service sector experienced 15% of the no-time loss claims and 21% of the time loss claims in 2003. The construction sector had 8% of the no-time loss and 9% of the time loss claims in 2003, while transportation, communication and storage had roughly 5% of no-time loss and 7% of time loss claims in 2003.

While the mining sector had about 4% of all no-time loss claims, it only had 1% of the time loss claims in 2003.

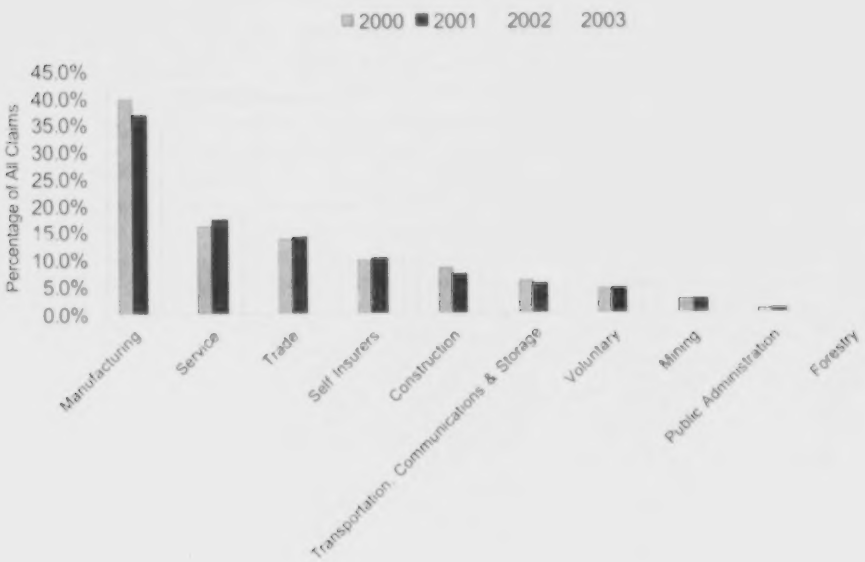

Figure 4.3 Claims by Major Industry Grouping, 2000 to 2003

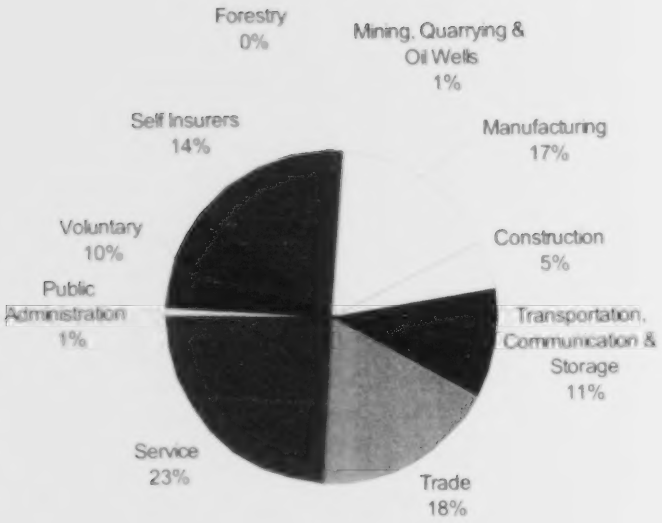

Figure 4.4 Industry Share of Full Time Equivalent Workers, 2000 to 2003

4.4 Occupation

Just as certain industries have more workplace injuries and illnesses, so do certain occupations. Over the 2000-2003 period, one occupation group (trades, transportation and equipment operators) accounted for the largest proportion of time loss claims. In 2003, a variety of trade related occupations accounted for 40% of time loss claims. Claimants were most likely to be employed in a variety of trade related occupations or as transport or equipment operators. These occupations produced 40% of claims in 2003. In 2003, 18% of claimants were in processing and manufacturing occupations, down from 27% in previous years. Sales and service occupations employed about 19% of claimants. About 10% of claimants were in health-care occupations in 2003.

In 2003, women filed 87% of the claims coming from health-care workers. In addition, women reported more than half of the claims in the skilled sales and service occupations (51%), social sciences (77%), education, art and culture (58%). In this same year men reported 75% or more of the time loss claims in the natural sciences, trades and transport equipment (92%), primary occupations (85%), and processing manufacturing occupations (78%).

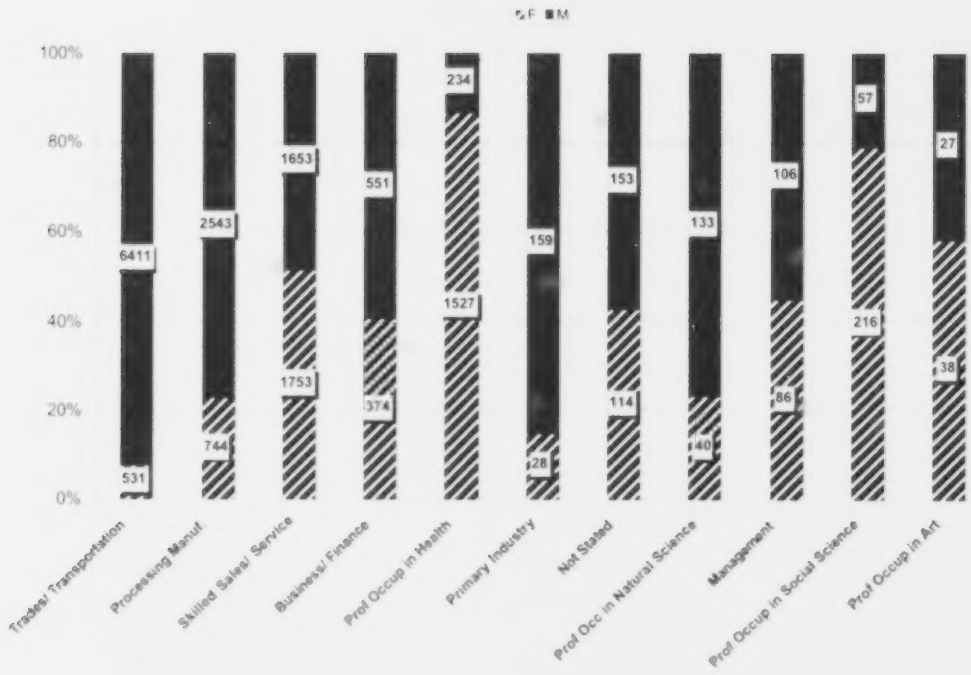

Figure 4.5 Gender and Occupational Groupings of Claimants, 2003

4.5 Part of Body

This section provides information about which parts of the body are at the greatest risk of an occupational injury or illness. This information allows prevention efforts to be more effectively targeted. The WCB uses two methods of reporting the part of body injured. The first method assigns a letter of the alphabet to different parts of the body. The so-called "stickman" codes are a simple, first-level sorting of injured body parts and are reported in the WCB annual report. All claims are given stickman codes. The next method uses a coding system developed by the Canadian Standards Association (the CSA Z795 coding system). This system provides additional details on injured body parts and is the standard coding methodology used by Workers Compensation authorities across Canada. Only timeloss claims are classified by the CSA coding system.

Using the WCB stickman codes, hands and fingers have been the most frequently injured body part since 2000 (in 2003 about 22% of all injured body parts). The second most frequent injuries were those occurring to multiple body parts, at 15% (usually this type of injury includes the back and another nearby body part) followed by the back (16%), legs (9%), lower arms (9%) and eyes (4%).

Using the Canadian Standards Association coding system produces a different profile of affected body parts. Because injuries to fingers and eyes commonly result in mostly no-time loss claims, these claims virtually disappear from the list of injured body parts affected by disabling work incidents that are coded using the CSA guide.

Since 2000, trunk injuries have accounted for roughly 36% of accepted time loss claims, rising to 38% in 2003. Most trunk injuries were to the back and spine.

Over 2000-2003, injuries to the lower extremities accounted for about 15% of the time loss injuries by part of body and these claims were comprised almost equally of injuries to the legs, ankles/ feet.

For each of the four years profiled, injuries to the upper extremities accounted for about one quarter of injuries. In 2003, njuries to fingers accounted for 10% of all time loss claims, and injuries to other upper extremities (11%) followed by hands and wrists (3%).

From 2000-2003, head injuries accounted for about 6% of the time loss claims. Over this period approximately two thirds of all head injuries involved the eye.

Table 4.2 Accepted Time Loss Claims by Part of Body, Injury Year 2000 to 2003 (CSA Z795 Coding)

	Time Loss Claims			
Part of Body	**2000**	**2001**	**2002**	**2003**
Trunk	**7,103**	**6,522**	**6,420**	**6,563**
Back including spine & spinal cord	*5,025*	*4,714*	*4,762*	*4,803*
Other trunk	*2,078*	*1,808*	*1,658*	*1,760*
Upper Extremities	**5,176**	**4,731**	**4,537**	**4,274**
Hands/ wrists except fingers	*890*	*725*	*556*	*558*
Fingers	*2,212*	*2,172*	*2,046*	*1,820*
Other upper extremities	*2,074*	*1,834*	*1,935*	*1,896*
Lower Extremities	**2,866**	**2,757**	**2,762**	**2,764**
Legs	*1,283*	*1,271*	*1,250*	*1,253*
Ankles/foot (not toes)	*1,271*	*1,267*	*1,231*	*1,233*
Other lower extremities	*312*	*219*	*281*	*278*
Head	**1,371**	**1,207**	**1,141**	**1,142**
Eyes	*920*	*779*	*712*	*712*
Other head	*451*	*428*	*429*	*430*
Multiple body parts	**2,347**	**2,397**	**2,368**	**2,135**
Neck	**252**	**217**	**220**	**196**
Body systems	**246**	**190**	**157**	**140**
Part of body- unknown/ other	**3**	**2**	**18**	**1**
Missing/ Not Coded	**595**	**570**	**246**	**267**
Total	**19,959**	**18,593**	**17,869**	**17,482**

4.6 Nature of Injury or Illness

The WCB records the medical diagnosis (i.e., the physical characteristics of the disabling injury or illness) for each accepted time loss claim. Information on the nature of injury or illness is not limited to no time loss claims.

4.6.1 Nature of Injury or Illness for Accepted Time Loss Claims (Major CSA Z795 Codes)

In 2003, traumatic injuries and disorders accounted for 90% of time loss claims. Sprains, strains and tears were the leading nature of injury or illness accounting for 52%. Surface wounds and burns accounted for 12% and open wounds accounted for 11% of all timeloss claims in that year. Systemic diseases and disorders accounted for an additional 9% of time loss claims in 2003, up slightly from the year before (6%).

Table 4.3 Accepted Time Loss Claims by Nature of Injury or Disease, Injury Year 2000 to 2003

Nature of Injury or Disease	Accepted Time Loss Claims			
	2000	2001	2002	2003
Traumatic Injuries and Disorders	**17,465**	**16,752**	**16,246**	**15,652**
Sprains, strains and tears	*8,602*	*8,774*	*9,119*	*9,137*
Surface wounds, bruises	*2,623*	*2,285*	*2,146*	*2,204*
Open wounds	*2,235*	*2,167*	*2,005*	*1,805*
Other traumatic injuries & disorders	*2,575*	*2,321*	*1,782*	*1,298*
Fractures, dislocations	*987*	*792*	*831*	*893*
Burns	*443*	*413*	*359*	*315*
Occupational Diseases	**1,917**	**1,271**	**1,377**	**1,563**
Systemic diseases & disorders	*1,586*	*1,050*	*1,057*	*1,191*
Other diseases, conditions & disorders	*77*	*54*	*47*	*52*
Symptoms, signs, ill defined conditions	*165*	*76*	*51*	*97*
Infectious, parasitic diseases	*32*	*21*	*21*	*26*
Multiple diseases, conditions & disorders	*14*	*4*	*31*	*157*
Neoplasms, tumors & cancer	*4*	*4*	*5*	*2*
Nature of disease unknown	*39*	*62*	*165*	*38*
Not Coded	**577**	**570**	**246**	**267**
Total	**19,959**	**18,593**	**17,869**	**17,482**

4.7 Source of Injury or Illness

The WCB also records the source of time loss injuries and illnesses: or, the substance or object that the worker was using or came into contact with at the time of the injury and which precipitated the injury and the time away from work.

4.7.1 Source of Injury or Illness (Detailed CSA Z795 Codes)

Of all source of injury categories, contact with persons, plants, animals and minerals have caused about 40% of accepted time loss injuries and illnesses since 2000. In one third of these cases, workers were injured without coming into contact with other persons or objects. They injured themselves through bodily motion, repetitive motion or stretching, bending, walking, running or tripping without falling.

Coming into contact with structures and surfaces was the source of injury of 15% of time loss claims in 2003. This includes workers who fell and thereby came into contact with the floor or ground.

Table 4.4 Accepted Time Loss Claims by Source of Injury or Disease, Injury Year 2000 to 2003

	Accepted Time Loss Claims			
Primary Source of Injury	**2000**	**2001**	**2002**	**2003**
Persons, Plants, Animals and Minerals[2]	**6,320**	**7,087**	**7,081**	**6,556**
Persons- injured or ill worker	*4,789*	*5,655*	*5,887*	*5,210*
Persons- other than injured worker	*1,197*	*1,143*	*910*	*1,062*
Minerals- metallic or non-metallic	*44*	*55*	*47*	*42*
Other persons, plants, animals, minerals	*290*	*234*	*237*	*242*
Structures and Surfaces	**2,523**	**2,439**	**2,514**	**2,555**
Parts and Materials	**2,720**	**2,083**	**1,842**	**1,851**
Containers	**2,259**	**1,601**	**1,596**	**1,620**
Vehicles	**833**	**725**	**688**	**724**
Tools, Instruments and Equipment	**1,326**	**1,158**	**1,099**	**1,139**
Hand tools- non-powered	*777*	*738*	*640*	*650*
Hand tools-powered	*374*	*295*	*279*	*265*
Other-tools and equipment	*175*	*125*	*180*	*224*
Machinery	**1,247**	**937**	**927**	**1,049**
Other Sources	**919**	**918**	**876**	**890**
Furniture and Fixtures	**643**	**546**	**524**	**555**
Chemicals and Chemical Products	**317**	**231**	**212**	**212**
Source Unknown	**257**	**295**	**281**	**63**
Not Coded	**595**	**573**	**229**	**268**
Total	**19,959**	**18,593**	**17,869**	**17,482**

[2] This category includes injuries sustained due to the bodily motion of the injured worker, repetitive motions and injuries caused by coworkers or others such as health-care patients

4.8 Event or Exposure

The WCB records the way in which workers sustained their injuries or diseases.

4.8.1 Time Loss Injuries by Event or Exposure (Categorized CSA Z795 Codes)

Workers are much more likely to be injured by bodily reaction or exertion than from contact with objects or equipment, or by falls. In 2003 about 50% of time loss claims were due to bodily reaction and exertion. Contact with objects or equipment resulted in 28% of the events or exposures in 2003. By comparison, falls from height or falls on one level made up roughly 13% of the time loss claims that same year.

Table 4.5 Accepted Time Loss Claims by Type of Event or Exposure, Injury Year 2000 to 2003

Type of Event or Exposure	Accepted Time Loss Claims			
	2000	2001	2002	2003
Bodily Reaction and Exertion	**9,652**	**8,986**	**8,889**	**8,678**
Overexertion	*4,926*	*3,388*	*3,037*	*3,498*
Bodily reaction	*3,876*	*4,937*	*5,083*	*4,080*
Repetitive motions	*810*	*640*	*708*	*895*
Other bodily reaction & exertion	*40*	*21*	*61*	*205*
Contact with Objects, Equipment	**5,985**	**5,461**	**5,066**	**5,006**
Struck by objects	*2,839*	*2,623*	*2,523*	*2,351*
Struck against objects	*1,582*	*1,377*	*1,222*	*1,261*
Caught in objects	*902*	*905*	*867*	*858*
Rubbed or abraded	*658*	*552*	*438*	*506*
Other contact with objects or equipment	*4*	*4*	*16*	*30*
Falls	**2,200**	**2,227**	**2,361**	**2,334**
Fall on same level	*1,343*	*1,424*	*1,571*	*1,608*
Fall from height	*857*	*802*	*767*	*710*
Other falls	*0*	*1*	*23*	*16*
Transportation Incidents	**278**	**236**	**252**	**232**
Exposure to Harmful Substances	**949**	**831**	**747**	**700**
Assaults and Violent Acts	**242**	**223**	**202**	**239**
Assaults and violent acts by persons	*210*	*194*	*181*	*215*
Other assaults and violent acts	*32*	*29*	*21*	*24*
Fires and Explosions	**20**	**11**	**18**	**7**
Event Unknown/Missing	**38**	**48**	**88**	**18**
Not Coded	**595**	**570**	**246**	**268**
Total	**19,959**	**18,593**	**17,869**	**17,482**

4.9 *Musculoskeletal Injuries*

Musculoskeletal injuries include sprains, strains, tears, back pain, carpal tunnel syndrome and other musculoskeletal or connective tissue diseases and disorders which result in time loss claims. These injuries often occur as a result of improper or inadequate workplace design or processes (ergonomic conditions). Proper ergonomic practices could prevent many of these types of injuries. Between 2000 and 2003, more than 50% of the accepted time loss injuries are musculoskeletal injuries.

Table 4.6 Accepted Time Loss Claims, Musculoskeletal Injuries (MSI), 2000 to 2003

	Time Loss Claims			
Type of Injury	**2000**	**2001**	**2002**	**2003**
Musculoskeletal Injuries	**10,386**	**9,626**	**9,999**	**10,047**
Non- Musculoskeletal[3]	**8,978**	**8,397**	**7,624**	**7,168**
Not coded	595	570	246	267
Total	**19,959**	**18,593**	**17,869**	**17,482**

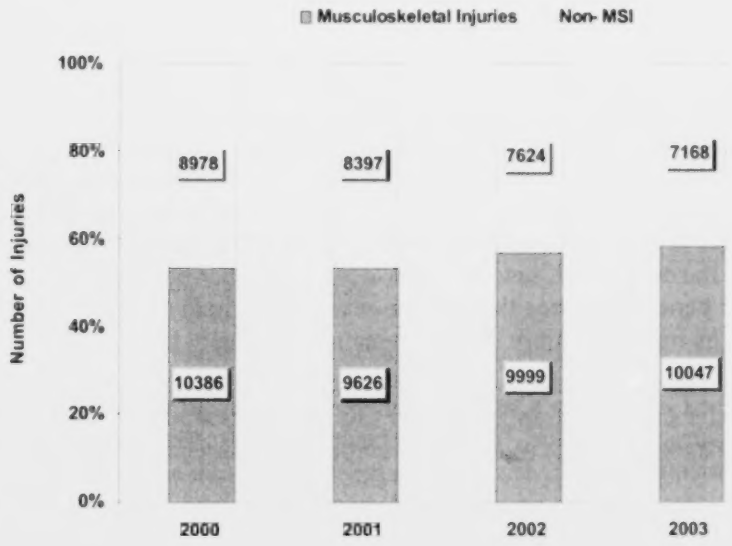

Figure 4.6 Musculoskeletal Injuries for Time Loss Claims, 2000 to 2003

[3] Examples include fractures, open wounds, burns, occupational diseases, hearing loss

5.0 *DISCUSSION*

The four years of data presented in this report enable the observation of emerging trends in occupational injuries and illnesses in Manitoba. Caution must be used, however, as four years is too short a time period in which to differentiate between actual trends and random fluctuations in the data. As future Injury Statistics Reports are published with longer time series, greater confidence will be warranted and other trends may be identified.

This section will comment on some significant patterns that are emerging, discuss possibly influential factors and potential impacts and consequences of the observed trends.

5.1 Injury Rate Trends

Manitoba's time loss injury rate is falling, from a high over the four year period of 5.8 time loss injuries per 100 workers in 2000 to 4.7 in 2003, a reduction of 19%. If this trend continues, it is on pace to meet the Manitoba government's target of a 25% reduction in the rate.

Unfortunately, the overall trend of a reduction in injury rates is not occurring consistently across industry sectors. Significant improvements in the manufacturing sector is largely responsible for the overall reduction in the time loss injury rate. The manufacturing industry's time loss injury rate has declined by 28% from 2000 to 2003 and accounts for 91% of the reduction in time loss injuries in all industry sectors. In spite of the dramatic improvements in the industry's time loss injury rate, the rate remains high and indicates that there is more work to be done.

Transportation, communication and storage, building construction and the mining sector have also experienced a declining time loss injury rate, though not to the same degree as manufacturing. The service sector – which includes hotels and restaurants, healthcare and other subsectors – on the other hand, saw an increase in the number of time loss injuries over the four year period, but since the number of workers employed in that sector has also increased, its time loss injury rate has remained relatively static.

The healthcare sector is one of Manitoba's largest employers, and it is growing, as are the number of injuries that occur in this sector. Injuries in healthcare occupations are predominately musculoskeletal in nature, derived from repetitive motion and the organization of work. In order to reduce injuries, a redesign of work procedures – such as additional training in patient lifting techniques and the development and use of lifting and other engineering and mechanical devices – will have to be undertaken. These issues present challenges to the industry, but are nevertheless vitally important if improvements in health and safety are to be achieved.

This report discusses both the time loss injury rate and the all injury rate. The all injury rate is comprised of both time loss, no-time loss injuries, and fatalities. While no-time loss injuries are generally less severe in nature, they are an important indicator of health

and safety. The all injury rate has declined from 11.5 injuries per 100 workers in 2000 to 9.4 injuries per 100 workers in 2003 – a significant reduction of 18% over the four year period. The manufacturing sector accounts for 79% of the reduction, with the remaining injury reduction shared about equally between the mining sector, building construction and transportation, communications and storage.

5.2 Fatalities

Fatalities that occur at work can be divided into two groups, those which are caused by occupational diseases resulting from exposures to toxic substances, usually with exposures that occur over many years, and those resulting from acute traumatic hazards. Approximately 3% of all time loss claims are related to occupational diseases. Typically, just over a third of all fatalities are related to occupational diseases, although in 2003, over 50% of fatalities were due to occupational disease. This change is due to greater numbers of firefighter cancer claims being received since *The Workers Compensation Act* was amended to include a rebuttable presumption that certain cancers are occupational diseases of full-time firefighters.

The majority of occupational diseases resulting in death are cancers, and most of those are from exposures long past. Improved diagnosis and epidemiology is expected to increase the number of occupational disease claims identified, filed and accepted. As diagnostic procedures improve, more cancers may be detected earlier. Further epidemiological studies may increase the portion of cancers attributed to work causes.

It is likely that mesothelioma claims and other claims related to asbestos exposure will continue to be reported to the WCB for a number of years to come. Such claims will be as a result of exposures that occurred approximately twenty to thirty years ago when the dangers of working with asbestos were less well understood, standards were lower, and workers were less likely to utilize the necessary protective equipment to prevent exposure. In recent years, protection standards have changed to better reflect an understanding of the dangers of exposure to these harmful substances and have been made significantly more stringent.

Traumatic workplace fatalities occur predominantly in three industry sectors: agriculture, construction and ground transportation. These tend to be hazardous workplaces – the farm, the construction site, the rail yard or highway – and the consequences of unsafe processes, practices and behavior are sometimes severe: serious injury and even death.

5.3 Age

While the number of injuries for all age groups together is falling, the same trend has not been observed among workers aged 45 years of age and older. In fact, the number of injuries in this group has been increasing over the four years studied. What is not clear, however, are the reasons for this trend. Some hypotheses are:

- The manufacturing sector is largely responsible for the drop in the injury rate and this sector tends to employ younger workers.

- Older workers may be disproportionately represented in sectors – such as healthcare – that have not experienced a reduction in injuries.
- Older workers may not be hearing the prevention message as well as their younger coworkers. Younger workers may be more likely to change their behaviour to make it safer.

Further analysis of the data will assist in clarifying the reasons for this trend.

The aging of the labour force has several significant impacts on the Workers Compensation system. Even though the number of injuries among older workers has been increasing, older workers still tend to have fewer injuries than their younger colleagues. It is estimated that workers 55 years of age and over are a third less likely than younger workers to suffer a time loss injury. Older workers are more prone to age-related injuries, and to occupational diseases with long latency periods. Older workers take longer to recover, are more likely to die, or be permanently disabled from their injuries than their younger counterparts. When workers aged 55 years or older are seriously injured, they need twice the recuperation time that younger workers require.

6.0 *TERMS AND DEFINITIONS*

Age: the worker's age at date of injury.

All-Injury Rate: The all-injury rate represents the number of WCB-accepted claims per 100 full-time equivalent workers in a calendar year. This rate represents the risk of workplace injury or disease to a worker over a one-year period.

Full-time equivalent workers are estimated based on gross payrolls submitted by covered employers and matching Statistics Canada wage-rate data. The injury rate is then calculated by dividing the number of accepted WCB time loss and no-time loss claims in a calendar year by the estimated number of full-time equivalent workers and multiplying that result by 100.

$$\text{All-injury rate} = \frac{\text{Number of WCB time loss and no-time loss claims in a calendar year} * 100}{\text{Estimated number of full-time equivalent workers}}$$

Collective Liability: This core principle of workers compensation spreads the cost of the compensation across all covered employers. In return for immunity from suit, covered employers wholly fund the compensation system through premiums or "assessments" paid into an Accident Fund. Compensation is paid from the Accident Fund maintained by the Workers Compensation Board (WCB) and is not dependent on an employer's ability to pay.

CSA Z795-96 standard: Many of the details surrounding the circumstances of the injury are coded using the Canadian Standards Association (CSA) guidelines for coding occupational injury and disease information (the CSA Z795-96 standard).

Event or Exposure: the manner in which the injury or disease was produced or influenced by the identified source (e.g., repetitive motion, fall, caught in machinery, etc.).

Full-Time Equivalent Worker: A full-time worker represents the equivalent of 52 paid weeks of employment, whether worked by one individual or several. Full-time equivalent workers are estimated based on the gross annual payroll submitted by covered employers in an industry and Statistics Canada average weekly wage-rate data appropriate to that industry. This method of estimating full-time equivalent workers is in accordance with a convention established by the Association of Workers' Compensation Boards of Canada (AWCBC) and adopted by the Manitoba WCB.

Full-Time Equivalent Worker = $\frac{\text{Firm Payroll}}{(\text{Average Weekly Earnings}^* 52)}$

Industry Classification: The industry groups displayed in the tables are derived from the classification system used for determining WCB assessments for employers (rate code groups). Rate code groups contain employers whose workplaces experience similar levels of risk. The industry categories are similar to, but not identical to, Statistics Canada's method of classifying industries. The federal agency uses the North American Industry Classification System (NAICS).

Musculoskeletal Injuries (MSIs): "musculoskeletal injuries" or "MSIs" are injuries to or disorders of the muscles, tendons, ligaments, joints, nerves, blood vessels or related soft tissue including a sprain, strain and inflammation. Such injuries may be caused or aggravated by work.

Nature of Injury or Disease: the principal characteristic of the injury or disease (e.g., amputation, sprain and strain, cut, etc.).

No-Time Loss Claims: No-time loss claims include claims where no time at work is lost due to the workplace incident and the worker is receiving health-care benefits. Within this category, the WCB includes no-cost claims which are claims that are accepted but have no costs associated with them when adjudicated.

Occupation: a worker's occupation at the time of the injury or either the onset of an occupational disease or the onset of a loss of earnings brought on by an occupational disease.

Part of Body: part of body directly affected by the nature of injury or disease (e.g., eye, finger, etc.)

Self Insurers: pay the cost of compensation for their employees directly.

Source of Injury or Disease: identifies the object, substance, exposure or bodily motion that directly produced or inflicted the injury or disease (e.g., knife, table saw, vehicles, etc.)

Time Loss Claims: Time loss claims include claims where time at work is lost beyond the day of injury due to a workplace injury or illness, fatalities and claims where a worker is granted a permanent impairment award. Starting the day following the injury, the WCB will replace the wages the worker lost as a result of the injury.

Time Loss Injury Rate: The time loss injury rate represents the number of WCB-accepted time loss claims per 100 full-time equivalent workers. This rate represents the risk to a worker of a time loss workplace injury or disease in a calendar year.

Full-time equivalent workers are estimated based on gross payrolls submitted by covered employers and matching Statistics Canada wage-rate data. The injury rate is then calculated by dividing the number of accepted WCB time loss and no-time loss claims in a calendar year by the estimated number of full-time equivalent workers and multiplying that result by 100.

$$\text{Time loss injury rate} = \frac{\text{Number of WCB time loss claims in a calendar year}}{\text{Estimated number of full-time equivalent workers}} * 100$$

6.1 Definitions and Sources of Identification for Fatalities

Inclusion Criteria:

This report attempts to include all deaths that occur in Manitoba as a result of an exposure to a hazard in the workplace.

Fatalities are included in this report when:

1. The Workers Compensation Board accepts a claim involving a fatality and determines that the death was the result of a workplace injury or illness. WCB-accepted fatalities are included regardless of where a death has occurred (i.e., a trucker who is killed while hauling out of province is included).
2. Manitoba Public Insurance accepts a claim involving a fatality and determines that the death was the result of a workplace injury or illness.
3. A death occurs in a non-WCB covered workplace and the Workplace Safety and Health Division of Manitoba Labour and Immigration investigates and determines that the death was the result of a workplace injury or illness.
4. The Royal Canadian Mounted Police investigates a fatality and determines that the death was the result of a workplace injury or illness.
5. A death occurs on a farm and falls under the inclusion criteria of the Canadian Agriculture Injury Surveillance Program.
6. The Office of the Chief Medical Examiner determines that a death the death was the result of a workplace injury or illness.

Definitions: For the purpose of workplace fatality surveillance, the following definitions are in use.

1. **Worker** – A worker is defined as a person in a position of employment performing any work which comes under the jurisdiction of the WCB of Manitoba, the Workplace Safety and Health Division of Manitoba Labour and Immigration or Human Resources Development Canada.
2. **Workplace** – A workplace is defined as any location where a worker is performing his or her assigned work. This includes the "highway" in the case of

workers whose death occurred while they were travelling if travelling is part of their required duties.

3. **Bystander** – A bystander is defined as a person who is killed in a "workplace", including a highway, as the result of a hazard of the workplace, but was not working for or in that workplace at the time of death.
4. **Acute-hazard exposure death** – This is a work-related fatality that occurs when a worker is injured or exposed to a significant amount of a hazardous agent. In such cases, the worker dies immediately or soon after the exposure. This category includes such deaths as falls from height, drowning, highway crashes, and chemical poisoning. It excludes deaths due to infectious agents.
5. **Work-related disease death** – This is a work-related fatality that occurs when a worker develops a disease as the result of a long-term exposure to a hazardous substance or contact with a disease-causing agent. In such cases, the worker dies after months or years have passed. This category also includes traumatic or single events that have precipitated a functional failure such as a myocardial infarction or an acute carbon monoxide inhalation. The fatalities are organized by year of acceptance by the Workers Compensation Board

Sources of Identification:

The Workplace Safety and Health Division of Manitoba Labour and Immigration is responsible for tracking the occurrence of fatalities in Manitoba workplaces. Since 2000, closer partnerships have been established with other provincial agencies in an effort to enhance this monitoring system. This has resulted in a process of accessing multiple data sources for the identification of workplace fatalities. The following sources currently contribute to the workplace fatality surveillance program.

A. Workplace Safety and Health Division
B. Workers Compensation Board of Manitoba
C. Office of the Chief Medical Examiner
D. Manitoba Department of Highways
E. Royal Canadian Mounted Police
F. Media clippings – daily review of local papers and electronic media.

Appendix: Tables

Table A1 Full-time Equivalent Workers by Major Industry Sector and Selected Subsectors, 2000 to 2003

Industry Sub-Sectors	Number of FTE[4] Workers			
	2000	2001	2002	2003
Forestry	**384**	**400**	**400**	**417**
Mining, Quarrying & Oil Wells	**4,357**	**4,700**	**4,500**	**4,420**
Mining	*3,664*	*3,700*	*3,500*	*3,301*
Manufacturing	**60,600**	**62,200**	**61,300**	**61,803**
Meat Processing	*2,774*	*3,100*	*3,500*	*3,602*
Metal Works	*5,689*	*5,900*	*5,800*	*5,992*
Vehicle Manufacturing	*3,853*	*3,700*	*3,200*	*3,060*
Agricultural Implement Manufacturing	*4,225*	*4,200*	*4,300*	*4,548*
Wood Manufacturing	*8,345*	*9,000*	*9,800*	*10,297*
Printing	*5,377*	*5,500*	*5,500*	*5,500*
Clothing Manufacturing	*5,800*	*5,300*	*4,900*	*4,444*
Aircraft Manufacturing & Repair	*4,232*	*4,100*	*3,700*	*3,294*
Construction	**16,311**	**16,200**	**17,900**	**17,420**
Building Construction	*12,631*	*13,000*	*14,900*	*14,766*
Heavy Construction	*3,405*	*3,300*	*3,100*	*3,416*
Transportation, Communication & Storage	**36,642**	**40,300**	**40,400**	**39,288**
Trucking	*8,830*	*8,900*	*8,900*	*9,705*
Trade	**64,812**	**66,000**	**68,900**	**70,666**
Supermarket & Department Stores	*42,104*	*43,700*	*45,100*	*47,553*
Service	**86,881**	**87,600**	**89,800**	**93,520**
Accommodation and Restaurants	*30,625*	*29,700*	*29,700*	*29,864*
Healthcare	*44,250*	*45,500*	*48,700*	*49,566*
Public Administration	**2,983**	**3,200**	**3,000**	**3,236**
Voluntary	**35,101**	**35,600**	**37,600**	**37,157**
Agriculture	*1,826*	*2,300*	*2,600*	*2,423*
Educational Institutions	*14,244*	*14,500*	*14,900*	*14,018*
Self Insurers	**49,166**	**54,600**	**52,800**	**55,467**
Overall	**348,720**	**362,000**	**367,623**	**376,778**

[4] Full- time equivalent workers based on Statistics Canada average wage and WCB payroll data.

Table A2 Accepted Claims by Gender, 2000 to 2003

Gender	2000	2001	2002	2003
Female	10,340	9,980	9,798	10,262
Male	29,123	26,244	24,867	24,575
Gender Unspecified	379	213	178	127
Total	**39,842**	**36,437**	**34,843**	**35,064**

Table A3 Accepted Claims by Age Group, 2000 to 2003 (All Claims)

Age Group	2000	2001	2002	2003	Total
15-24	7,400	6,555	6,133	6,073	26,161
25-34	10,323	9,030	8,291	8,115	35,759
35-44	11,263	10,267	9,715	9,596	40,841
45-54	7,111	7,082	6,991	7,395	28,579
55+	2,856	2,952	3,035	3,344	12,187
Not Coded	889	551	678	541	2,659
Total	**39,842**	**36,437**	**34,843**	**35,064**	**146,186**

Table A4 Claims by WCB Industry Group, Injury Year 2000 – 2003 No-Time Loss (NTL) & Time Loss (TL)

Industry Sector	2000		2001		2002		2003	
	NTL	TL	NTL	TL	NTL	TL	NTL	TL
Forestry	17	21	35	28	48	28	17	32
Mining	857	169	769	124	597	107	612	111
Manufacturing	7,764	7,667	6,883	6,598	6,482	5,958	6,243	5,466
Construction	1,614	1,673	1,276	1,450	1,249	1,536	1,408	1,571
Transportation, Communications & Storage	987	1,376	836	1,237	731	1,265	825	1,267
Trade	2,648	2,696	2,456	2,692	2,409	2,606	2,668	2,621
Service	2,926	3,433	2,792	3,556	2,679	3,601	2,921	3,616
Public Service	174	145	147	140	151	156	178	123
Voluntary	847	933	732	934	806	905	874	862
Self Insured	2,038	1,846	1,891	1,833	1,814	1,706	1,831	1,810
Missing/ Not Coded	11	0	27	1	8	1	5	3
Total	**19,883**	**19,959**	**17,844**	**18,593**	**16,974**	**17,869**	**17,582**	**17,482**

Table A5 Accepted Time Loss Claims by Occupational Group, Injury Year 2000 to 2003

Occupational Groups	Time Loss Claims			
	2000	2001	2002	2003
Trades, Transport & Equipment Operators	6,336	6,089	5,954	6,946
Processing, Manufacturing	5,395	4,095	3,336	3,287
Sales and Service	3,791	3,547	3,263	3,406
Health Occupations	1,619	1,570	1,492	1,761
Business, Finance & Administration Occupations	1,105	992	877	925
Primary Industry	277	206	197	187
Social Science, Education, Government	161	156	205	273
Management Occupations	151	139	170	192
Natural & Applied Sciences & Related	165	126	111	173
Art, Culture, Recreation	48	45	53	65
Not Coded	911	1,628	2,211	267
Total	**19,959**	**18,593**	**17,869**	**17,482**

Table A6 Accepted Time Loss Claims by Detailed Source of Injury, 2000 to 2003

Source Description	Accepted Time Loss Claims			
	2000	2001	2002	2003
Bodily motion or position of injured, ill worker	4,706	5,588	5,829	5,154
Ground	647	814	853	1,236
Health care patient or resident of health care facility	1,017	947	757	941
Floor of building	797	804	639	477
Boxes, crates, cartons	832	600	579	539
Knives	474	534	429	354
Unknown	257	295	281	63
Metal chips, particles	346	274	255	273
Doors	292	253	215	241
Floors, walkways, ground surfaces, unspecified	7	20	204	112
Cart, dolly, hand truck	242	214	200	206
Bags, sacks, totes	247	209	187	163
Skids, pallets	194	154	161	218
Machinery, unspecified	162	198	148	36
Dirt particles	138	173	143	159
Vehicle and mobile equipment parts, n.e.c.	255	186	141	108
Buckets, baskets, pails	242	182	134	109
Person-other than injured or ill worker, n.e.c.	126	175	127	96
Tables, worktables	114	144	122	91
Wood, lumber, unspecified	39	142	115	62

Tanks, bins, vats	110	81	111	119
Bars, rods, reinforcing bar (rebar)	180	156	101	72
Other machinery, n.e.c.	81	64	99	83
Other sources, n.e.c.	1	135	87	96
Metal materials-nonstructural, unspecified	41	89	86	75
Cabinets, cases-display, storage	127	121	80	54
Truck, unspecified	68	60	79	56
Nails, brads, tacks	114	107	78	56
Metal materials-nonstructural, n.e.c.	132	88	78	70
Semi trailer, tractor trailer, trailer truck	92	89	79	83
Noise	38	56	70	58
Food slicers	96	95	70	88
Water	73	67	67	34
Automobile	86	75	66	10
Parking lots	94	50	63	33
Other sources	6,897	4,784	4,890	5,590
Not Coded	595	570	246	267
Total Sources	**19,959**	**18,593**	**17,869**	**17,482**

Table A7 Accepted Time Loss Claims by Event or Exposure, 2000 to 2003

	Time Loss Claims			
Event Description	**2000**	**2001**	**2002**	**2003**
Bending, climbing, crawling, reaching, twisting	2,491	3,800	3,534	3,097
Overexertion in lifting	3,347	2,550	2,353	2,471
Fall to floor, walkway, or other surface	1,042	1,106	1,266	1,284
Struck against stationary object	798	997	916	943
Struck by slipping handheld object	824	924	737	714
Struck by falling object	1,026	896	705	621
Struck by object, n.e.c.	328	343	675	481
Bodily reaction, n.e.c.	287	237	485	286
Caught in or compressed by equipment or objects, n.e.c.	137	235	435	537
Overexertion in pulling or pushing objects	869	484	427	535
Rubbed or abraded by foreign matter in eye	575	501	420	420
Repetitive motion, n.e.c.	217	292	415	475
Slipping on something without fall	586	480	399	338
Bodily reaction, unspecified	287	270	330	144
Fall onto or against objects	301	315	293	316
Contact with hot objects or substances	332	295	277	264
Caught in running equipment or machinery	280	287	219	178
Compressed or pinched by rolling, sliding, or	466	368	191	131

shifting objects				
Fall to lower level, n.e.c.	154	120	177	89
Fall down stairs or steps	204	193	163	169
Fall from ladder	150	169	156	162
Repetitive placing, grasping, or moving objects, except tools	375	206	145	282
Fall from nonmoving vehicle	190	172	130	115
Contact with skin, eye(s) or other exposed tissue	201	187	128	124
Overexertion, n.e.c.	313	224	123	38
Tripping over something without fall	167	136	106	101
Struck by or slammed in swinging door or gate	147	123	102	121
Other event codes	3,270	2,113	2,316	1,779
Not coded	595	570	246	267
Total	**19,959**	**18,593**	**17,869**	**17,482**

Table A8 Accepted Time Loss Claims, Musculoskeletal Injuries (MSI), 2000 to 2003

	Time Loss Claims			
Type of Injury	**2000**	**2001**	**2002**	**2003**
Musculoskeletal Injuries	**10,386**	**9,626**	**9,999**	**10,047**
Strains and sprains	*8,602*	*8,765*	*9,070*	*9,074*
Back pain/ hurt back	*636*	*177*	*224*	*171*
Carpal tunnel	*165*	*135*	*116*	*148*
Repetitive strain	*983*	*549*	*589*	*654*
Non- Musculoskeletal[5]	**8,978**	**8,397**	**7,624**	**7,168**
Not coded	595	570	246	267
Total	**19,959**	**18,593**	**17,869**	**17,482**

[5] Examples include fractures, open wounds, burns, occupational diseases, hearing loss

Table A9 **Claims by Part of Body Injured ("Stickman Codes"), Injury Year 2000 to 2003**

	Accepted and Unadjudicated Claims			
Stickman Code Description	**2000**	**2001**	**2002**	**2003**
Hand / fingers	9,261	8,559	8,017	7,810
Multiple injury	5,935	5,478	5,495	5,289
Back	6,249	5,668	5,407	5,613
Leg	3,620	3,419	3,315	3,426
Arm	3,652	3,292	3,123	3,279
Eyes	3,595	2,901	2,775	2,828
Shoulder	1,526	1,481	1,374	1,453
Foot / toes	1,355	1,213	1,127	1,133
Miscellaneous	1,187	1,167	969	987
Ribs / chest	921	864	809	878
Head/ Neck	1,249	1,091	1,115	1,055
Abdomen	471	496	448	467
Hearing	224	262	373	355
Other Body Parts/Codes	572	521	488	462
Not coded	25	25	8	29
Total	**39,842**	**36,437**	**34,843**	**35,064**

Table A10 Accepted Time Loss Claims by Nature of Injury, 2000 to 2003

	Accepted Time Loss Claims			
Z795 Nature of Injury	**2000**	**2001**	**2002**	**2003**
Sprains, strains, tears, unspecified, n.e.c.	8,120	8,626	8,894	8,937
Cuts, lacerations	1,783	1,740	1,585	1,450
Bruises, contusions	1,792	1,646	1,576	1,605
Fractures	728	667	665	699
Foreign bodies (superficial splinters, chips)	622	502	423	432
Crushing injuries	489	522	425	410
Multiple traumatic injuries and disorders	1,036	1,163	681	259
Tendonitis	352	276	277	231
Heat, burns, scalds	353	300	228	228
Punctures, except bites	305	303	270	224
Back pain, hurt back	636	177	224	171
Carpal tunnel syndrome	165	135	116	148
Abrasions, scratches	91	50	107	157
Epicondylitis	119	100	135	133
Soreness, pain, hurt, except the back	345	192	206	113
Dislocations	132	76	64	112
Inguinal hernia	119	105	98	109
Cuts, abrasions, bruises	93	81	74	109
Spasms or tremors, n.e.c.	153	67	45	86
Fractures and other injuries	70	26	98	82
Traumatic tendonitis	110	56	75	81
Concussions	51	41	56	72
Welder's flash	104	72	60	64
Amputations, fingertip	86	58	60	62
Deafness, hearing loss or impairment	35	57	68	57
Sciatica	56	16	31	55
Other poisonings and toxic effects, n.e.c.	108	99	70	48
Anxiety, stress, neurotic disorders, unspecified	73	54	46	47
Dermatitis, unspecified	50	51	32	40
Traumatic epicondylitis	-	87	36	38
Unknown	39	61	165	38
Avulsions	33	23	46	34
Traumatic bursitis	51	37	45	31
Chemical burns, unspecified	79	86	52	26
Rotator cuff tear	111	22	39	24
Surface wounds and bruises, unspecified	111	78	36	6
"Other" Codes	717	346	515	797
Missing/ Not Coded	642	595	246	267
Total	**19,959**	**18,593**	**17,869**	**17,482**